FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/12
Date Received: 11/29/12
Project: % of Acid M09819, F&BI 211475
Date Extracted: 12/04/12
Date Analyzed: 12/05/12

RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES FOR SPECIFIC GRAVITY @ 15.56 °C

Sample ID Laboratory ID	Specific Gravity
M09819A Sm Tank 211475-01	1.16
M09819B Lg tank 211475-02	1.20

Note: The third significant digit is an estimate

Date of Report: 12/07/12
Date Received: 11/29/12
Project: % of Acid M09819, F&BI 211475
Date Extracted: NA
Date Analyzed: 11/30/12

RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES FOR PERCENT ACID

Sample ID Laboratory ID	Percent Acid
M09819A Sm Tank 211475-01	11
M09819B Lg tank 211475-02	13

Date of Report: 12/07/12
Date Received: 11/29/12
Project: % of Acid M09819, F&BI 211475

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AQUEOUS SAMPLES FOR SPECIFIC GRAVITY @ 15.56 °C

Laboratory Code: 211475-01(Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Specific Gravity	1.16	1.16	0	0-2

Date of Report: 12/07/12
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Project: % of Acid M09819, F&BI 211475

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES FOR PERCENT ACID

Laboratory Code: 211475-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Percent Acid	11	11	1	0-20

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

211475

SAMPLE CHAIN OF CUSTODY

ME 11-29-12

AI4

Send Report To Gerald Thompson

Company Alaskan Copper Works

Address 628 S. Hanford St

City, State, ZIP Seattle WA 98134

Phone # 206-571-6033 Fax # 206-382-4308

SAMPLERS (signature)

PROJECT NAME/NO. % of Acid

PO # M09819

REMARKS

Page # ___ of ___

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH 4 day
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	% of Acid	Spec. Gravity				Notes
M09819A	01	11/29/12	12:20	H_2O	1							X	X				
Sm tank																	
M09819B	02	11/29/12	12:30	H_2O	1							X	X				
Lg tank.																	

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Gerald Thompson	ACW	11/29/12	1:16pm
Received by:	[signature]	Nhan Phan	FEBT	11/29/12	V
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS\COC\COC.DOC

Samples received at 28 °C

AKC-0003357

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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TEL: (206) 285-8282
e-mail: fbi@isomedia.com

December 7, 2012

Gerald Thompson, Project Manager
Alaskan Copper Works
PO Box 3546
Seattle, WA 98146

Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 29, 2012 from the % of Acid M09819, F&BI 211475 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
ACU1207R.DOC